

IN THE CLAIMS:

1.-82. (cancelled)

83. (new) A method for making RNA using a target nucleic acid sequence in a target nucleic acid as a template, the method comprising:

- (a) amplifying the target nucleic acid sequence in a template-dependent process that comprises ligating two or more oligonucleotides in the presence of the target nucleic acid; and
- (b) transcribing the ligation product from step (a) with an RNA polymerase.

84. (new) The method of claim 83 wherein the RNA polymerase is a N4 virion RNA polymerase.

85. (new) The method of claim 84 comprising the steps of:

- (a) obtaining the N4 virion RNA polymerase;
- (b) obtaining DNA, wherein said obtaining comprises:
 - (i) providing a sample containing a target nucleic acid having a target nucleic acid sequence;
 - (ii) annealing first and second probe oligonucleotides adjacently to each other on a said target nucleic acid, wherein said first oligonucleotide comprises a N4 virion RNA polymerase promoter sequence; and
 - (iii) ligating said first and second probe oligonucleotides to one another to generate said DNA;
- (c) admixing said RNA polymerase and said DNA; and
- (d) culturing said RNA polymerase and said DNA under conditions effective to allow RNA synthesis.

86. (new) The method of claim 85 wherein the N4 virion RNA polymerase is mini-vRNAP, a single transcriptionally active polypeptide that is approximately 1,100 amino acids in

length and that corresponds to the middle 1/3 of the complete N4 virion RNA polymerase between amino acid 998 and amino acid 2103 of the full-length N4 virion RNA polymerase, or wherein the N4 virion RNA polymerase is the Y678F mutant form of mini-vRNAP, wherein the amino acid at position number 678 is phenylalanine rather than tyrosine.

87. (new) The method of claim 85 wherein the N4 virion RNA polymerase is a polypeptide that has the amino sequence set forth in SEQ ID NO:4 or SEQ ID NO:6 or a mutant of the polymerase of SEQ ID NO:4 or SEQ ID NO:6, such as a mutant with a mutation at position number Y678, such as the polypeptide that has the amino sequence set forth in SEQ ID NO:8, or a transcriptionally active portion of any of these sequences.

88. (new) The method of claim 83 wherein the target nucleic acid consists of a target sequence tag that is joined to an analyte-binding substance and the method is used for detecting an analyte to which the analyte-binding substance binds, wherein, prior to performing step (b), the method additionally comprises the steps of: obtaining the analyte-binding substance to which the target sequence tag is joined; contacting the analyte-binding substance to which the target sequence tag is joined with the analyte to form a specific binding pair; removing the analyte-binding substance molecules that are not bound to the analyte from the specific binding pair; and providing the specific binding pair from which the analyte-binding substance molecules that are not bound to the analyte have been removed.

89. (new) The method of claim 88 wherein the RNA polymerase is a N4 virion RNA polymerase.

90. (new) The method of claim 89 wherein the N4 virion RNA polymerase is mini-vRNAP, a single transcriptionally active polypeptide that is approximately 1,100 amino acids in length and that corresponds to the middle 1/3 of the complete N4 virion RNA polymerase between amino acid 998 and amino acid 2103 of the full-length N4 virion RNA polymerase, or wherein the N4 virion RNA polymerase is the Y678F mutant form of mini-vRNAP, wherein the amino acid at position number 678 is phenylalanine rather than tyrosine.

91. (new) The method of claim 90 wherein the N4 virion RNA polymerase is a polypeptide that has the amino sequence set forth in SEQ ID NO:4 or SEQ ID NO:6 or a mutant of the polymerase of SEQ ID NO:4 or SEQ ID NO:6, such as a mutant with a mutation at position number Y678, such as the polypeptide that has the amino sequence set forth in SEQ ID NO:8, or a transcriptionally active portion of any of these sequences.

92. (new) The method of claim 88, wherein the analyte is selected from a biochemical molecule, a biopolymer, a protein, a glycoprotein, a lipoprotein, an enzyme, a hormone, a biochemical metabolite, a receptor, an antigen, an antibody, a nucleic acid, a DNA molecule, an RNA molecule, a polysaccharide, and a lipid, and/or wherein the analyte-binding substance is selected from a nucleic acid, a polynucleotide, an oligonucleotide, a DNA molecule, an RNA molecule, a molecule comprising both DNA and RNA mononucleotides, modified DNA mononucleotides, a molecule obtained by a method termed "SELEX", a nucleic acid molecule or a polynucleotide molecule having an affinity for protein molecules, an operator, a promoter, an origin of replication, a ribosomal nucleic acid sequence, a sequence recognized by steroid hormone-receptor complexes, a peptide nucleic acid (PNA), a molecule prepared by using a combinatorial library of randomized peptide nucleic acids, an oligonucleotide or polynucleotide with a modified backbone that is not an amino acid, a lectin, a receptor for a hormone, a hormone, and an enzyme inhibitor.

93. (new) A method of making RNA comprising:

(a) obtaining a N4 virion RNA polymerase consisting of either: mini-vRNAP; or the Y678F mutant form of mini-vRNAP, wherein the amino acid at position number 678 is phenylalanine rather than tyrosine;

(b) obtaining a single-stranded DNA oligonucleotide wherein said oligonucleotide contains a N4 virion RNA polymerase promoter sequence;

(c) admixing said RNA polymerase and said oligonucleotide; and

(d) culturing said N4 virion RNA polymerase and said oligonucleotide under conditions effective to allow RNA synthesis.

94. (new) The method of claim 93 wherein step (b) comprises:
- (i) providing a target nucleic acid that exhibits a target nucleic acid sequence;
 - (ii) amplifying the target nucleic acid sequence in a template-dependent process that comprises ligating two or more oligonucleotides in the presence of the target nucleic acid as a template.